OPTICAL FILM COMPRISING POLYARYLATES CONTAINING BIS-(HYDROXYPHENYL)-FLUORENE-ORTHO-DISUBSTITUTED BISPHENOLS

Abstract of the invention

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The present invention refers to a polymeric optical film the polymer of the polymeric optical film consisting essentially of one or more polyarylates having repeating units represented by the general structure:

$$\begin{bmatrix} A - B \end{bmatrix}_n$$

wherein A represents one or more different bisphenolfluorene radicals having the general formula (I):

wherein R₁ and R₂ independently represent an alkyl group, a halogen atom, an alkoxy group, an acyl group, a phenyl group or a nitrile group, with the proviso that R₁ and R₂ are not both an alkyl group; R₃, R₄, R₅ and R₆ represent a hydrogen atom, an alkyl group, a halogen, an alkoxy group, an acyl group, a phenyl group, a nitro group, or a nitrile group, with the proviso that when R₁ and R₂ are both bromide atoms, at least one of R₃, R₄, R₅ and R₆ is different from hydrogen

20 atom;

B represents one or more different dicarboxy radicals having the formula:

wherein X is a divalent aromatic hydrocarbon group having from 6 to 20 carbon atoms, and n is the number of the repeating units which build up the polymer and is a positive integer higher than 20.

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The optical film of the present invention has excellent mechanical and thermal properties, a high Tg and does not readily yellow upon exposure to light.